

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all previous versions and listings of claims in this application.

Claim Listing:

1. (Currently Amended) A nozzle arrangement adapted to be fitted to a pressurized vessel or container containing an expandable fluid held under pressure in the vessel or container and to permit said expandable fluid present in said vessel or container to be dispensed therethrough under pressure, said nozzle arrangement comprising:

a body including an inlet, an outlet, and walls which define an internal fluid flow passageway through which fluid can flow from said inlet to said outlet, one of said walls of the body comprising a resiliently deformable wall member; and

wherein the body is formed of two interconnected parts, each of said parts having respective abutment surfaces which are contacted together, one of the parts of the body having a base for mounting to the vessel or container and an actuator portion movably attached to the base and adapted, upon operation, to engage and open an outlet valve of the pressurized vessel or container to which the arrangement is attached to enable the expandable fluid present in the pressurized vessel or container to be released into the internal fluid flow passageway,

wherein the resiliently deformable wall member defines substantially the entire length of the internal fluid flow passageway,

wherein, in response to an actuation of the actuator portion that causes fluid present in the pressurized vessel or container to be released into the internal fluid flow passageway, the resiliently deformable wall member undergoes a resilient deformation between an initial resiliently-biased configuration in which said substantially the entire length of the internal fluid flow passageway is closed and a distended configuration that allows fluid to flow through said internal fluid flow passageway and be dispensed through the outlet, and

wherein, in response to a deactivation of the actuator portion that stops fluid present in the pressurized vessel or container from being released into the internal fluid flow passageway, the resiliently deformable wall member reverts to the initial resiliently-biased configuration such that any fluid remaining in the substantially entire length of the passageway is caused to be expelled,

~~wherein the body is formed of two interconnected parts, each of said parts having respective abutment surfaces which are contacted together, and~~

wherein one of the two interconnected parts comprises the resiliently deformable wall member and the other of the two interconnected parts has a corresponding wall which, together with the resiliently deformable wall member, defines said substantially the entire length of the internal fluid flow passageway.

2. (Previously Presented) A nozzle arrangement according to claim 1, wherein the outlet is defined, at least in part, by the resiliently deformable wall of the body, which is configured:

(a) to undergo a resilient deformation from an initial resiliently-biased configuration, in which the outlet is closed, to a distended configuration, in which fluid can flow through said outlet when fluid is cause to flow through the nozzle arrangement in response to the operation of said actuator portion,

(b) to revert to the initial resiliently-biased configuration when the operation of the actuator portion has ceased, said initial resiliently-biased configuration causing any fluid remaining in said outlet to be expelled.

3. (Previously Presented) A nozzle arrangement according to claim 2, wherein the outlet is an open end of said passageway and the resiliently deformable wall which defines the outlet is the end of the resiliently deformable wall member which defines said substantially the entire length of the internal fluid flow passageway.

4. (Previously Presented) A nozzle arrangement according to claim 1, wherein the resilience of the resiliently deformable wall member is uniform along its length.

5. (Previously Presented) A nozzle arrangement according to claim 1, wherein the resiliently deformable wall member is adapted such that, when the operation of the actuator portion has ceased and the resiliently deformable wall reverts to the initial resiliently-biased configuration, any fluid remaining in the passageway is expelled through the outlet.

6. (Previously Presented) A nozzle arrangement according to claim 1, wherein the resilience of said resiliently deformable wall member varies along its length.

7. (Previously Presented) A nozzle arrangement according to claim 5, wherein the resilience of the resiliently deformable wall member is greater at locations disposed away from the outlet than at locations proximate to said outlet so that, when operation of the actuator portion has ceased, the internal surface fluid flow passageway resiliently deformable wall elastically recoils to a collapsed configuration at positions further way from the outlet so as to cause any fluid remaining in said portion of the internal passageway to flow towards, and be expelled through, the outlet.

8. (Previously Presented) A nozzle arrangement according to claim 7, wherein the resiliently deformable wall defines an internal surface which extends for substantially the entire length of the fluid flow passageway, and the resilience of the resiliently deformable wall is greater at an inlet end of the passageway than at positions proximate to said outlet, so that, when the operation of the actuator is ceased, the resiliently deformable wall reverts to the initial resiliently-biased configuration at the inlet so as to cause any fluid remaining in said passageway to flow towards, and be expelled through, the outlet.

9. (Previously Presented) A nozzle arrangement adapted to be fitted to a pressurized vessel or container and to permit fluid present in said vessel or container to be dispensed through the arrangement under pressure, said nozzle arrangement comprising:

a body including, an inlet, an outlet, an internal fluid flow passageway through which fluid can flow from said inlet to said outlet,

an actuator portion adapted, upon operation, to engage and open an outlet valve of the pressurized vessel or container to which the arrangement is attached to enable fluid present in the pressurized vessel or container to be released into the nozzle arrangement, and

wherein said body comprises a resiliently deformable wall member substantially defining the length of the fluid flow passageway, said resiliently deformable wall member being configured:

(a) to undergo a resilient deformation from an initial resiliently-biased configuration, in which the passageway is closed, to a distended configuration, in which fluid can flow through said passageway and be dispensed through the outlet when fluid is caused to flow through the nozzle arrangement in response to the operation of said actuator portion, and

(b) to revert to the initial resiliently-biased configuration when the operation of the actuator portion has ceased and thereby cause any fluid remaining in the substantially entire length of the passageway to be expelled,

wherein the body comprises two interconnected parts, each of said interconnected parts having respective abutment surfaces which are contacted together,

wherein portions of said respective abutment surfaces form walls of the body defining said internal fluid flow passageway, and at least one of said abutment surfaces of said portions forms said resiliently deformable wall member, and

wherein a resilience of said resilient deformable wall member increases proportionally with increasing distance from the outlet.

10. (Previously Presented) A nozzle arrangement according to claim 1, wherein two or more walls of the body define the internal fluid flow passageway, at least one of which is

resiliently deformable and, in the initial resiliently-biased configuration, is resiliently biased against the opposing walls to define a closed passageway.

11. (Original) A nozzle arrangement according to claim 10, wherein the internal fluid flow passageway is defined by two walls of the body, at least one said walls being resiliently deformable and providing an internal surface of the passageway which is resiliently biased against the surface formed by the opposing wall in the initial resiliently-biased configuration so as to define a closed passageway.

12. (Original) A nozzle arrangement according to claim 1, wherein only one of said walls is resiliently deformable and is resiliently biased to abut the opposing wall in the resiliently biased configuration.

13. (Previously Presented) A nozzle arrangement according to claim 27, wherein a first of said walls of the body comprises a groove formed in an abutment surface thereof, which extends from an inlet defined by the body to an edge of the abutment surface, said groove forming a first wall of the fluid flow passageway and being adapted to receive a corresponding resiliently deformable ridge member formed on the abutment surface of the second of the walls of the body, said ridge member being resiliently biased against the surface of said groove when the two abutment surfaces are contacted together to form said initial resiliently biased configuration, said ridge member being further configured to deform away from said groove to a distended configuration whereby an open passageway is defined when the actuator portion is operated and fluid is cased to flow through the arrangement under pressure.

14. (Previously Presented) A nozzle arrangement according to claim 27, wherein a terminus of fluid flow passageway at an edge of said abutment surfaces defines the outlet.

15. (Previously Presented) A nozzle arrangement according to claim 27, wherein said two interconnected parts are releasably connected together.

16. (Previously Presented) A nozzle arrangement according to claim 27, wherein said two interconnected parts are permanently connected together.

17. (Previously Presented) A nozzle arrangement according to claim 27, wherein said two interconnected parts are made from the same material.

18. (Previously Presented) A nozzle arrangement according to claim 17, wherein said two interconnected parts are made from a rigid/flexible plastic material.

19. (Previously Presented) A nozzle arrangement according to claim 27, wherein one of said two interconnected parts is made from a rigid plastics material and the other of said parts is made from a resiliently deformable material.

20. (Previously Presented) A nozzle arrangement according to claim 27, wherein a sealing arrangement is disposed between said abutment surfaces to prevent any fluid that leaks from said internal fluid flow passageway from seeping out of the nozzle arrangement between the two opposing abutment surfaces.

21. (Previously Presented) A nozzle arrangement according claim 1, wherein a seal is disposed in said fluid flow passageway to provide a substantially airtight seal.

22. (Previously Presented) A nozzle arrangement according to claim 21, wherein said seal comprises a groove on said resiliently deformable wall that extends across a width of the internal fluid flow passageway, said groove being adapted to receive, and form a sealing engagement with, a ridge member formed on an opposing wall when said resiliently deformable wall is in the initial resiliently biased configuration.

23. (Previously Presented) A nozzle arrangement according to claim 21, wherein said seal comprises a ridge member disposed on said resiliently deformable wall that extends across a width of the internal fluid flow passageway, said ridge member being adapted to be received by, and form a sealing engagement with, a groove member formed on an opposing wall when said resiliently deformable wall is in the initial resiliently biased configuration.

24. (Previously Presented) A nozzle arrangement according to claim 21, wherein said seal is disposed proximate to said outlet.

25. (Previously Presented) A nozzle arrangement according to claim 1, wherein the nozzle arrangement is configured such that the inlet through which fluid accesses the fluid flow passageway during use is disposed directly adjacent to the outlet of the pressurized fluid filled vessel or container to which it is adapted to be attached so that fluid dispensed through the outlet flows a minimal distance before entering the fluid flow passageway.

26. (Previously Presented) A pressurized fluid-filled vessel or container comprising an outlet valve and a nozzle arrangement as defined in claim 1 fitted thereto such that fluid ejected through said outlet during use is caused to flow through said nozzle arrangement.

27. (Previously Presented) The nozzle arrangement of claim 1, wherein portions of said abutment surfaces form the walls of the body defining said internal fluid flow passageway, and wherein at least one of said portions of said abutment surfaces forms said resiliently deformable wall member.

28. (Previously Presented) The nozzle arrangement of claim 1, wherein said substantially the entire length of the resiliently deformable wall member comprises at least 75% of the length of the internal fluid flow passageway.

29. (Previously Presented) The nozzle arrangement of claim 1, wherein said substantially the entire length of the resiliently deformable wall member comprises at least 90% of the length of the internal fluid flow passageway.

30. (Previously Presented) The nozzle arrangement of claim 1, wherein said substantially the entire length of the resiliently deformable wall member comprises at least 98% of the length of the internal fluid flow passageway.